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DOES THE NON-UROLOGIC SCIENTIFIC COMMUNITY UNDERSTAND UROTHELIAL BLADDER CANCER?

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In a Research Highlights editorial entitled 'Seemingly Similar' in April's Nature Reviews Cancer the opening line read: *"Bladder cancer is classified as either a low-grade, non-muscle-invasive disease, which needs lifelong surveillance to guard against recurrence, or a high-grade, muscle-invasive disease, which is likely to metastasize"*. Even the important paper that this editorial discusses uses the description *"Low-grade non-muscle invasive ("superficial") cancers, which account for 70% of tumor incidence, are not immediately life-threatening, but they have a propensity for recurrence that necessitates costly lifelong surveillance"* [1]. Surely, these statements either represent a clear misunderstanding of the disease or a very poor use of terminology?

As we know, non-muscle-invasive bladder cancer (NMIBC) is classified as either low- or high-grade, or as grades 1, 2, or 3 [2]. High-grade NMIBC represents at least 15% of all bladder cancers [3], and is a significant disease with an accompanying significant risk of recurrence and progression to muscle-invasive disease (MIBC) [2;4]. Furthermore, a meaningful proportion of patients initially diagnosed with NMIBC will ultimately die from bladder cancer [5]. Such is the risk of progression for large and/or multiple high-grade or grade 3 pT1 NMIBCs that many clinicians will offer patients radical cystectomy as first-line treatment instead of bladder-preserving therapy (e.g. intravesical BCG) [2].

It has taken over a decade for urology to drop the term "superficial" bladder cancer and replace it with NMIBC, a better designation that does not downplay the significance of the disease both in terms of outcomes and costs to healthcare providers, patients and society [6;7]. Unfortunately, statements such as those above undermine some of this work by perpetuating the myth that NMIBC is somehow insignificant.

But why is there such misunderstanding? Admittedly, the majority of bladder cancer genome sequencing efforts are currently directed towards MIBC [1;8], but this patient group represents less than 25% of the incident bladder cancer population [3]. The most significant gains for bladder cancer patients (and healthcare providers) to be made from these approaches are likely to lie within the NMIBC population and especially those patients with high-grade or grade 3 pT1 disease [9]: we urgently need a better understanding of which of these patients would benefit from early aggressive treatment with radical cystectomy, whilst better initial management of patients with low-grade disease may allow less intensive surveillance and result in patient and economic benefits.

It is clear that we need to do more to educate the non-urologic scientific community regarding bladder cancer so that important basic science research does not ignore the majority of bladder cancer patients.

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